AMENDMENTS TO THE CLAIMS

1-32. (Canceled)

33. (Previously presented)A method according to claim 34, wherein said device is wholly implanted subcutaneously in said host.

34. (Currently amended) A method of measuring glucose in a biological fluid, comprising the steps of:

a) providing a host;

b) providing an implantable device comprising a housing comprising a convexly protruding active sensing ~~mechanism~~ surface and a membrane directly in contact with the convexly protruding active sensing surface, wherein the membrane comprises ~~comprising~~ an angiogenic layer positioned over said convexly protruding active sensing surface ~~sensing mechanism, and wherein said angiogenic layer is positioned over said convexly protruding sensing mechanism~~ to assist in the formation of vasculature adjacent to the ~~sensing mechanism~~ convexly protruding active sensing surface such that glucose can be provided to the sensing mechanism for continuous measurement of glucose when the device is implanted in the host; and

c) implanting said device subcutaneously into a tissue of said host.

35-37. (Canceled)

38. (Currently Amended) A method of monitoring glucose levels, comprising:

a) providing i) a host, and ii) a device comprising a housing and a sensor capable of continuous glucose sensing, wherein said ~~housing~~ sensor comprises ~~a~~ one or more protruding convexly curved ~~portion~~ electroactive surfaces over which a sensing membrane and a vascularization promotion layer are located~~, and wherein the sensor is directly in contact with the protruding convexly curved portion~~; and

b) implanting said device subcutaneously.

39-40. (Canceled)

41. (Previously presented)A method according to claim 38, wherein said device is sized and configured for being wholly implanted subcutaneously.

42. (Previously Presented) A method according to claim 41, further including the step of transmitting data from said device telemetrically.

43-47. (Canceled)

48. (Previously Presented) The method of claim 34, wherein said membrane further comprises a sensing membrane comprising an enzyme.

49. (Previously presented)The method of claim 38, wherein said sensing membrane comprises an enzyme.

50-53. (Canceled)

54. (Previously Presented) The method of claim 34, wherein said implantable device further comprises an electrolyte phase, wherein said electrolyte phase is situated between said membrane and said sensing mechanism.

55. (Previously presented)The method of claim 38, wherein said device further comprises an electrolyte phase, wherein said electrolyte phase is situated between said sensing membrane and said sensor.

56. (Previously presented)The method of claim 38, further comprising implanting said device in said host under conditions such that said device measures said glucose accurately for a period of time exceeding 90 days.

57. (Previously presented)The method of claim 56, wherein said device measures said glucose accurately for a period exceeding 150 days.

58. (Previously presented) The method of claim 56, wherein said device measures said glucose accurately for a period exceeding 360 days.

59. (Previously presented) The method of claim 38, further comprising explanting said device after 90 days.

60. (Previously presented)The method of claim 59, wherein said device is explanted after 150 days.

61. (Previously presented)The method of claim 59, wherein said device is explanted after 360 days.

62. (Previously Presented) The method of claim 38, wherein said vascularization promotion layer stabilizes over a time period to produce long-term level reflecting adequate microcirculatory delivery of glucose and oxygen to said sensor.

63. (Previously Presented) The method of claim 38, wherein said vascularization promotion layer is formed from a material selected from the group consisting of polytetrafluoroethylene, hydrophilic polyvinylidene fluoride, mixed cellulose esters, polyvinyl

chloride, polyethylene, polypropylene, Teflon, cellulose acetate, cellulose nitrate, polycarbonate, polyester, nylon, polysulphone, polymethacrylate, mixed esters of cellulose polyvinylidene difluoride, silicone, and polyacrylonitrile.

64. (Previously presented) The method of claim 38, wherein said vascular promotion layer comprises a material that has a characteristic of stimulating growth of new vascular structures by said host close to said device.

65. (Previously presented)The method of claim 38, wherein said sensor senses glucose using an enzymatic mechanism.

66. (Previously presented)The method of claim 38, wherein said sensor senses glucose using a non-enzymatic mechanism.

67-69. Canceled

70. (Previously presented)The method of claim 34, further comprising implanting said device in said host under conditions such that said device measures said glucose accurately for a period of time exceeding 90 days.

71. (Previously presented)The method of claim 70, wherein said device measures said glucose accurately for a period exceeding 150 days.

72. (Previously presented) The method of claim 70, wherein said device measures glucose accurately for a period exceeding 360 days.

73. (Previously presented) The method of claim 34, further comprising explanting said device after 90 days.

74. (Previously presented)The method of claim 73, wherein said device is explanted after 150 days.

75. (Previously presented)The method of claim 73, wherein said device is explanted after 360 days.

76. (Previously Presented) The method of claim 34, wherein said angiogenic layer stabilizes over a time period to produce long-term level reflecting adequate microcirculatory delivery of glucose and oxygen to said sensing region.

77. (Previously Presented) The method of claim 34, wherein said angiogenic layer is formed from a material selected from the group consisting of polytetrafluoroethylene, hydrophilic polyvinylidene fluoride, mixed cellulose esters, polyvinyl chloride, polyethylene,

Teflon, cellulose acetate, cellulose nitrate, polycarbonate, polyester, nylon, polypropylene, polymethacrylate, polysulfone, mixed esters of cellulose polyvinylidene difluoride, silicone, and polyacrylonitrile.

78. (Previously Presented) The method of claim 34, wherein said angiogenic layer comprises a material that has a characteristic of stimulating growth of new vascular structures by said host close to said device.

79. (Currently amended) The method of claim 34, wherein said active sensing ~~region~~ surface is configured to sense glucose using an enzymatic mechanism.

80. (Currently amended) The method of claim 34, wherein said active sensing ~~region~~ surface is configured to sense glucose using a non-enzymatic mechanism.

81. (Currently amended) The method of claim 34, wherein said active sensing ~~region~~ surface is configured to sense glucose using a resonance mechanism.

82. (Currently amended) The method of claim 34, wherein said active sensing ~~region~~ surface is configured to sense glucose using an acoustic wave mechanism.

83. (Currently amended) The method of claim 34, wherein said active sensing ~~region~~ surface is configured to sense glucose using an optical mechanism.

84-87. (Canceled)